

Our Schools Serve the War Effort

By

JOHN W. STUDEBAKER

U. S. Commissioner of Education

THREE years ago I had the pleasure of addressing this Association at its annual meeting in Chicago. That was in the spring of 1940. How long ago it seems today. It takes an effort of memory to recall that Hitler's hordes, having blitzed and overrun Poland in the previous autumn, were then gathering their strength for the spring campaign. There had been a false quiet on the western front that winter—some talk of even "a phoney war"—how far removed it all seemed to be from us here in America. And then beginning in May of 1940 came the swift conquest of the Lowlands, the capitulation of France, the British Dunkirk, and the whole rapid succession of events which followed.

How turgid and turbulent those events have been! How ruthlessly they have caught up the lives of millions of men and women! How difficult have they been for finite minds to follow and to comprehend! Even a short year ago how few of us had fully grasped the significance of the fact that we too were finally caught up in this global war, this war for survival, this revolutionary war which is to change the course of history for generations to come.

Today at long last all of us begin to realize that we are in for a long, hard struggle, that we face a stupendous task, that we must tax all of our resources to win. A year ago production loomed large in everybody's mind; our main concern then was to convert the nation's productive plant to the business of war. Today, we have become conscious of the fact that wars are won by men and women—that human resources are of quite as crucial importance to the successful waging of all-out total war as are ships and planes and tanks and guns. Today we know that the total human resources of the nation must be efficiently utilized to fight this war; that men and women of all ages must be engaged in a balanced program of war services, each stationed where he or she can best contribute in terms of abilities and ages and priorities of need in the armed forces, in industry, agriculture, transportation, commerce, or in those essential occupations for the maintenance of strength and morale on the home front.

In the total mobilization and utilization of our human resources, the schools of the nation have a major role to play. Let me briefly point out a few of the more important of the many contributions of schools to the war effort. In so doing I request your forbear-

ance if I should seem tediously to recount what many of you who are on the firing line of active duty already know from personal experience.

FIRST, then, I shall mention the war production training program, under which more than five million older out-of-school youth and adults have been given brief intensive training courses to fit them for work in war production industries. In thousands of schools and colleges these courses are being conducted. Upon this program the federal government will spend more than \$150,000,000 this year. Upon this program of training the war industries of the nation are depending to train many of the three million workers who must enter war plants during this calendar year.

Second, equally important, though not so well known generally is the contribution the schools are making in developing an understanding of the meaning of the war, the problems which must be solved if it is to be won and if a just and enduring peace is to follow. Coupled with this contribution through school courses and adult discussion groups are manifold activities in direct civilian participation in the war effort. To mention only a few: schools are helping to raise funds to finance the war through sale of War Savings Stamps and Bonds. They are operating centers for the day care of children of mothers employed outside the home. They are conducting classes for youth and adults in first aid, home nursing, and nutrition; they are sponsoring school and home Victory Gardens and serving as centers for a wide variety of civilian defense activities.

A third important contribution of the schools to the war effort is in the area of direct training for the armed forces. For example, in the Army and Navy Specialist Training Programs the government will this year utilize the facilities and faculties of several hundred colleges and universities to train some 250,000 officer specialists. This program, too, is being supported by Congressional appropriations; its cost will probably total considerably more than \$200,000,000 annually.

Fourth, there is pre-induction training for the armed forces and for civilian war services through the High School Victory Corps. This voluntary organization of high school youth has as its general objective the preparation of students for essential war services which will come after these young people leave school, as well as the stimulation of more active participation in community war service activities while the young people are in school. For this program the President

Address delivered before the American Association for Health, Physical Education and Recreation, Cincinnati, Ohio, April, 1943.

Abdominal Exercise

(Continued from Page 481)

hyperextended position of the spine may overload weak abdominal muscles.

To obtain abdominal action in trunk raising, the individual should "fold" up to sitting, and there should be an emphasis on *avoiding any support on the thigh or at the ankle* while doing the initial trunk flexion. Support may be applied or not as necessary during the completion of the movement, that is, the flexion of the pelvis on the thigh. Postural tendencies should be observed, and tests for strength of abdominal muscles should be employed in outlining a program of abdominal exercises.

The following tests for strength of anterior abdominal muscles have been used by the authors for the

80 PER CENT

1. With arms folded on the chest, the patient rolls his pelvis as above and "folds" to sitting position.
2. With hands clasped behind the head, the patient rolls his pelvis as above to flatten the lumbar spine. The examiner then raises the patient's legs to an angle of approximately 40 degrees from the table and asks the patient to keep his back flat on the table while holding the legs in that position.

60 PER CENT

1. With arms down at side (but with no assistance from hands or elbows), the patient rolls his pelvis and "folds" up to sitting position.
2. Same as (2) under 80 per cent except that legs are held at an angle of approximately 60 degrees.

50 PER CENT

1. With arms down at side, the patient is able to roll his pelvis and lift his head and shoulders about 4 or 5 inches from the table.
2. Same as (2) under 80 per cent except that legs are held at an angle of approximately 75 degrees from the table.

30 TO 40 PER CENT

With knees slightly flexed (blanket rolled under them) have the patient roll his pelvis as above and raise his head. The patient is able to approximate the pubis and the sternum as the head is lifted for 30 per cent, and as the head is lifted against moderate resistance for 40 per cent.

20 PER CENT

The patient is able to approximate the pubis and sternum as he rolls the pelvis and depresses the chest, but as the weight of the head is lifted, the rectus "gives" and the thorax is elevated.

5 PER CENT

The patient can "set" or tense the abdominal muscles slightly but is unable actually to approximate the pubis and sternum in attempting the pelvic roll. Depend on reflex action and palpation for grading.

Postural deviations correspond to a great extent typical faulty posture with kyphosis-lordosis, or kyphosis and forward displacement of pelvis, the posture suggests strength of muscles which flex the thorax on the pelvis and weakness of muscles which tilt or displace the pelvis backward. Abdominal muscles' tests of an individual with this type posture usually show correspondingly normal or good strength in the trunk-raising test, and weakness in the leg-raising test.² In outlining exercises on the basis of such examination findings, trunk flexion should be minimized or omitted, and emphasis should be placed on exercise of the muscles (mainly posterior portions of external oblique) which tilt the pelvis up and backward, and correct forward displacement of the pelvis.

Abdominal muscle exercises should be given when needed, but because exercise of these muscles is done

² For detailed discussion of position and actions of abdominal muscles, refer to United States Public Health Bulletin 242, Chapter 4.

in the direction of flattening the lumbar spine, it is necessary to caution a growing child against overdoing this type of exercise to a point of obliterating the normal lumbar curve. A lumbar spine should be flexible enough to flatten but should not be maintained in a perfectly straight position so far as the erect posture is concerned.






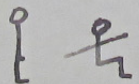



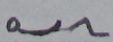
A program of exercises for trunk muscles should be well balanced from the standpoint of exercising all large groups of trunk muscles. Movements should be such as to insure localization to those muscle groups for which the exercise is intended, and should allow sufficient range of motion to increase or maintain good flexibility in all directions.

The following exercises are suggested as a balanced program for exercise of trunk muscles, and are designed to obtain both strength and flexibility.

1. Flexion of thorax on pelvis (See figure 3).
2. Flexion of pelvis on thorax (See figure 4).
3. Trunk extension (See figure 5).
4. Upper back and over-head arm extension with lower abdominal contraction (See figure 6).
5. Trunk rotation with pelvis held firm (See figure 7).
6. Trunk lateral flexion (See figure 8).

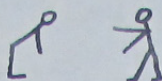
OVERWEIGHT EXERCISES FOR HOME USE .

IMPORTANT- Diet - No eating between meals, quantity of starch fat and sugar reduced; salads and fruits in abundance, more bulky foods. Candy and deserts to be avoided.

- | | | |
|--|---|---|
| 1. Running in place. |  | 1. Elbows bent- bring knees up high in front. |
| 2. Relaxation- breathing. |  | 2. Relax trunk fwd. exhaling (1) up slowly to erect position inhaling deeply (2) Repeat 10 times |
| 3. Sitting-trunk bending and twisting. |  | 3. Sitting on stool, hands on hips. Trunk twisting and bending from side to side. Twisting 15 counts bending 15 counts. |
| 4. Jumping jack |  | 4. Standing-jump with feet apart and clap hands over head (1) back to position (2) in rhythm. |
| 5. Lying- knee bending. |  | 5. R.L. and both knees, bending to chest 15 6 counts. Repeat until tired. In rhythm. |
| 6. Heel raising-knee bending |  | 6. Deep knee bending-back straight stretching arms out to side as knees bend. In rhythm. |
| 7. Aerorplane. |  | 7. Stride standing-arms raised to sides R. hand to L toe (1) up erect (2) L. hand to R toe (3) up erect (4) in rhythm. |
| 8. Walking-good posture. |  | 8. Push up tall-toes straight ahead abdomen contracted. |
| 9. Mat treading. |  | 9. Knee chest position, stretch one leg back along mat as bring other knee to chest. Moderate rhythm. |
| 10. Hook lying-deep breathing. |  | 10. Placing hands on lower ribs breathe deeply; exhale, pressing lightly with hands. In rhythm. |

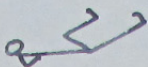
POOR POSTURE EXERCISES FOR HOME USE.

1. Trunk Pendulum



1. Standing-feet apart, trunk bent slightly fwd. Swing both arms from side to side twisting trunk keeping feet flat on floor.

2. Bicycle



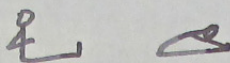
2. Lying on back, hands under head or hips, legs moving in motion of peddling a bicycle. Until tired.

3. Mosher



3. Hands placed lightly on abdomen, pull abdominal muscles in with force 1. Relax 2 Push out 3 Relax 4 Slow Rhythm.

4. Rowing



4. Reach frw. touch fingers to toes Pull up to erect position, bend arms 30 counts.

5. Foot circling



5. Sitting-cross knees, circle foot that is off floor - down - in - up. Change when tired.

6. Hook Sitting-
Back stretching.



6. Stretch up tall, pulling chest out - head up - relax. Pull up with top of head.

7. Lying-single & double
knee bending.



7. To six counts. R.L. Both. Repeat 10 times.

8. 9th Rib Breathing



8. Standing-hands placed lightly over lower ribs, inhale deeply - expanding lower chest (1) exhale (2).

9. Aeroplane



9. Stride standing-arms raised to sides. R. hand to L. toe (1) up erect (2) L hand to R toe (3) up erect (4). In rhythm.

10. Posture Training



10. Standing feet 4" apart, relax fwd. fingers to floor (1) starting at lower end of spine come up slowly, stand tall. side to mirror. 10 times

Poor posture exercises for home use.

- | | |
|--|---|
| 1. Trunk Pendulum | 1. Standing-feet apart, trunk bent slightly fwd. Swing both arms from side to side twisting trunk keeping |
| 2. Bicycle. | |
| 3. Mosher | |
| 4. Rowing | |
| 5. Foot Circling | |
| 6. Hook Sitting-back stretching | |
| 7. Lying-single & double knee bending. | |
| 8. 9th Rib Breathing | |
| Aeroplane | |
| 10. Posture Training | |

UNDERWEIGHT EXERCISES FOR HOME USE.

1. Lying-relaxation.

1. Complete relaxation of the body in a quiet place.

2. 9th rib breathing.



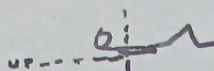
2. Standing-hands placed lightly over lower ribs, inhale deeply-expanding lower chest.

3. Posture training.



3. Stand feet 4" apart, relax fwd fingers to floor (1) starting at lower end of spine come up slowly, stand tall.

4. Hook lying-arm flinging.



4. Arms flinging upward (1) back to sides (2) (sideways (3) sides (4) Fwd (5) down (6) 6 counts in slow rhythm. Repeat 10 times.

5. Lying on back-alt. leg raising.



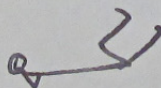
5. Alternate leg raising & lowering in slow rhythm. Until tired.

6. Sitting-trunk circling.



6. Sitting on a stool, hands on hips circle trunk-side-fwd- side & up straight. Change direction every 5 counts.

7. Bicycle.



7. Lying on back, ahnds under head or hips, legs moving in eircle-motion of peddling a bicycle. Continue until tired.

8. Mosher.



8. Hands placed lightly on abdomen pull abdominal muscles in with f force (1) relax (2) push out (3) relax (4) slow rhythm.

9. Walk in good posture.

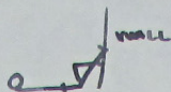
9. Pushing up to tall-toes, straighten ahead.

10. Rest-relax.

Complete relaxation- quiet place

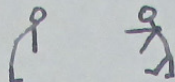
FOOT CARD FOR HOME USE .

1. Wall Bicycle.



1. Lying-arms bent, keep hips and feet against wall. Alternate knee bending with double arm stretching overhead in rhythm.

2. Trunk Pendulum



2. Standing-feet apart, trunk bent slightly fwd. Swing both arms from side to side, twisting trunk, keeping feet flat on floor.

3. Foot Circling



3. Sitting-cross knees, circle foot that is off the floor, down-in-up 15-30 times.

4. Arms Flinging X & fly.



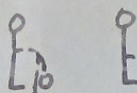
4. Stride standing-cross arms low in front and fling to fly position. in rhythm 30 counts.

5. Ground Gripping



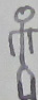
5. Picking up marbles with toes. 15 times each ~~to~~-floor- foot. Lift as high as opposite knee.

6. Posture Training



6. Standing - feet 4" apart, relax fwd fingers to floor (1) starting at lower end of spine come up slowly, stand tall Side to mirror.

7. Foot Rolling Out.



7. Standing -feet 4" apart. Roll feet out, curling toes under (1) and in (2) Slowly-until tired.

8. Duck Walk



8. Standing-toes turned in slightly-walk slowly until slightly fatigued.

9. Aeroplane



9. Stride standing-arms raised to sides R. hand to L toe (1) up erect (2) L hand to R. toe (3) up erect (4) In rhythm.

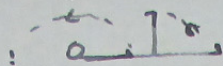
10. Grip Walk.



10. Slowly- step fwd. R. grip floor with toes-relax and step L. Keep body up t tall. Repeat until tired.

EXERCISES FOR HOLLOW BACK FOR HOME USE.

1. Extensions



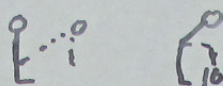
1. Lying-double arm raising fwd. upward overhead, with alternate leg raising. In rhythm.

2. Long Sitting



2. Relax fwd. (1), sit up tall- back flat (2) 20 counts slowly.

3. Back Springing



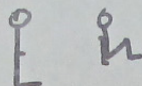
3. Stride standing-trunk springing down to touch fingers to floor. 5 counts-rest-repeat- 20 counts.

4. Single Arm Circling



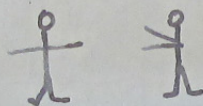
4. Stride standing-single arm circ. fwd-up and down in back. Change every 8 counts, in moderate rhythm.

5. Deep knee bending.



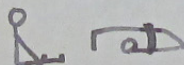
5. Standing-feet tog., deep knee bending-back straight and knees tog. In slow rhythm.

6. Windmill



6. Stride standing, arms raised to side. Trunk twisting R. & L. as far as possible without moving feet. In rhythm.

7. Rocking Horse



7. Long sitting-place hands under knees, lie down, touch toes to floor over head. Back to sitting position in rhythm.

8. Back Flattening



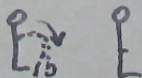
8. Hook lying - flatten back to floor by contracting abdominal muscles.

9. Knee Bending



9. Standing -alt. knee bending to chest clasping hands around knee. Pull knee to chest keeping body up tall. 20 counts.

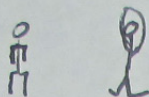
10. Posture Training.



10. Relax frw. downward fingers to floor, up slowly to erect position.

EXERCISES FOR POSTURAL CURVATURE (HOME USE)

1. Jumping jack



1. Standing-jump feet apart and clap hands over head (1) back to position (2) in rhythm.

2. Trunk circling



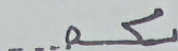
2. Stride standing-hand on hips, circle trunk to left (1) fwd (2) and up erect (3).

3. Keynote position



3. Standing tall, stretch R. arms up and L. arm out to side. Hold position until tired. Stretching hard with R. arm Rest-repeat.

4. Flexions.



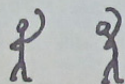
4. Lying on back-arms bent, alternate knee bending with double arm stretching overhead. In rhythm.

5. Mosher



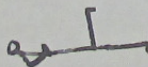
5. Hands placed lightly on abdomen, pull abdominal muscles in with force (1) relax (2) push out (3) relax (4) Slow rhythm.

6. Side lying-leg raising



6. Lying on R. side L hand on floor in front of body, R. hand under head. Raise L leg up (1) and down (2) In rhythm.

7. Side bending-to left.



7. Stride standing-L hand on side under L arm, R. arm relaxed over head. Push with L. hand and bend to L side, keep feet flat on floor.

8. Self correction-in front of mirror.



8. Stand with side to mirror and stand with ease in good posture, reaching tall with top of head.

9. Back springing



9. Stride standing-trunk springing up and down touching fingers to floor. 5 counts-rest- repeat . 20 counts.

10. Balance Walking.



10. Stand erect-step fwd. (1) up on toes (2) front heel down (3) Repeat until tired. Reaching up tall with top of head.



The **Margaret Eaton School Digital Collection** is a not-for-profit resource created in 2014-2015 to assist scholars, researchers, educators, and students to discover the Margaret Eaton School archives housed in the Peter Turkstra Library at Redeemer University College. Copyright of the digital images is the property of Redeemer University College, Ancaster, Canada and the images may not be copied or emailed to multiple sites without the copyright holder's express written permission. However, users may print, download, or email digital images for individual non-commercial use. To learn more about this project or to search the digital collection, go to <http://libguides.redeemer.ca/mes>.